

## 2014 Student Success Summit Concurrent Sessions

**10:00-10:50am**

### **Engaged. Connected. Retained: Strategies for Influencing the Success of Multicultural Students**

Presenters: LeQuetia Ancar, Assistant Director of Student Services, College of Engineering; Denise Williams, Diversity Coordinator, College of Human Sciences; Audrey Kennis, Multicultural Liaison Officer and Academic Advisor, College of Design

Session description: “If I don’t look at myself in the mirror before I leave for school in the morning, I may never see another person who looks like me all day.” Could this be one of your students? Being a multicultural student on a predominantly white campus can feel like being a small fish in a giant fishbowl. It comes with a myriad of challenges and successes. This session will take a look at three distinct programs in the College of Design, the College of Engineering, and the College of Human Sciences that are addressing these challenges and building upon successes by focusing on the academic, professional, and social success and retention of multicultural students. Participants will learn about various activities and programs to consider developing when fostering an environment that is more supportive of the leadership development and building of community with multicultural students.

### **Academic Engagement Through Group Tutoring at Iowa State University**

Presenters: Jen Haywood, Rebecca Nation, Kim Townsend, Susan Rhoades, Ph.D.: Academic Success Center Tutoring Services

Session description: Participants will learn about the philosophy of ISU's tutoring services and the processes the Academic Success Center uses to engage student in 'learning how to learn' through group tutoring. Participants will participate in a mock tutor interview as part of the session activity, as well as reflect on that activity. The session will end with a Q&A opportunity.

### **ISU-HHMI Project: Engage to Excel**

Presenter: Craig Ogilvie, Professor, Department of Physics and Astronomy, Assistant Dean, Graduate College.

Session description: The goal of the ISU-HHMI project is to engage and enthuse 1st and 2nd-year science students by having them experience the excitement of discovery and use their scientific skills to make a difference in this world. Our three main initiatives are: 1) adding extended 5-6 week research projects into lab courses so that all science students conduct research, not just those who work in a faculty’s research lab; 2) changing our large enrollment introductory labs from cookbook to inquiry-based where students make decisions on how to experimentally test key questions; 3) for large intro classes faculty are adding active learning during class with tasks focused on major learning goals. These changes have been designed, implemented, and tested using Faculty Learning Communities (FLCs) and embedded HHMI teaching postdocs. We are now impacting almost 9,100 students per year (AY13) and this is expected to grow to over 10,800 in the

current academic year. This is perhaps the largest scale curriculum reform on campus.

We will provide an overview of the project, along with increase in STEM retention and student learning outcomes as a result of this large-scale reform. We will also present the plans for the next four years of the project. Participants will be asked to provide input on these proposed changes, in particular seeking partnerships between student affairs and faculty.

### **Campus Resources for Mental Health, Physical Health and Academic Success: Simple Strategies and Recommendations**

Presenters: Craig Zywicki, Program Coordinator, Academic Success Center; Terry Mason, Assistant Vice President for Student Affairs, Director of Student Counseling Services, Michelle Hendricks, Director of the Thomas B. Thielen Student Health Center; Kipp Van Dyke, Interim Director of Student Assistant and Outreach

Session description: Staff members from Student Counseling Service, Thielen Student Health Center, Academic Success Center, and Student Assistance frequently meet with students to provide support that impacts wellness and retention. The goal of this session is to increase awareness of what these campus resources do to serve students, how and when to refer students to these services, and their impact on students' success. Following a brief presentation of each unit, the remainder of this session will be a panel format, for participants to address needs they observe in students. Participants will gain increased awareness of strategies impacting students' mental wellness, physical well-being, and academic success.

### **Improving Student Success in Introductory Mathematics Courses**

Presenters: Clifford Bergman, Professor and Chair of Mathematics; Elgin Johnston, Professor of Mathematics and Director of The Center for Excellence in Undergraduate Mathematics Education; Timothy McNicholl, Associate Professor of Mathematics, Course Coordinator for Pre-calculus; Christine Schultz, Lecturer in Mathematics, Course Coordinator for Math 10

Session description: This session will provide an overview of ISU retention data, examine efforts to increase student persistence, and identify retention practices that support the persistence of students at greater risk of not succeeding and other student subpopulations. Participants will review the efforts that have been taken at enhancing student success in introductory mathematics courses.

### **MAP-Works® Works!**

Presenters: Aurelia Kollasch, Senior Research Analyst, Department of Residence; Keith Robinder, Associate Dean of Students, Dean of Students Office; Rachel Wagner, Associate Director for Residence Life, Department of Residence

Session description: Making Achievement Possible at Iowa State University has now entered its sixth year and serves as the campus early warning system. MAP-Works® employs a sophisticated heuristic to predict students who struggle academically allowing early intervention. Over 30,000 students have participated in MAP-Works®, and the system has enabled effective intervention by aligning behaviors with

outcomes, enhancing self-awareness through social norming, and connecting students with their campus resources and support services. This session will review its impact and identify ways to leverage its capacity as an intervention tool to increase student success.

This presentation will begin by illustrating the CHANGES that have occurred as a result of having MAP-Works® for the past six years and how MAP-Works has been integrated into campus interventions including student involvement, academic engagement, report writing, and action planning. The goal of this session is to demonstrate the value of MAP-Works® and explore how individual units and the campus community can capitalize upon its utility as a student success tool. Most importantly, this session seeks to empower campus partners to continue utilization of MAP-Works® in the way that best suits their department's individual needs while still supporting the broader mission and purpose of MAP-Works® at Iowa State.

**11:00-11:50 am**

**The Importance of Feedback: Collaborating to Provide the Best Support Possible to Veterans, Military Personnel and Their Families**

Presenters: Jathan Chicoine, Veterans Services Coordinator; Denise Williams, Doctoral Student, School of Education

Session description: The number of Veterans, military personnel and family members receiving military educational benefits has increased substantially in the last decade and will most likely continue. Iowa State University's Veterans Center opened in 2012, with the recognition that supporting these students requires the commitment of the entire campus. During this session, we will share the ISU results from the 2014 Iowa Survey of Military and Veteran students to better understand the unique needs of these students. This session will also include discussion about how units across campus might collaborate with the ISU Veterans Center to develop successful partnerships geared toward the retention and success of Veterans, military personnel, and their family members. Participants will leave with an increased awareness, understanding, and engagement in critical dimensions of student success for military and Veteran students and their families.

**Student Success and Retention Partnerships: A "Best Practice" Panel Discussion Presented by the Dean of Students Office**

Presenters: Rachel Azima, Ph.D., Director of the Writing Media Center; Steve Moats, M.A., Director of Student Disability Resources; Susan Rhoades, Ph.D., Director of the Academic Success Center; Keith Robinder, Ph.D., Associate Dean of Students; Debra Sanborn, Ph.D., Director of the Hixson Opportunity Awards Program and National Student Exchange

Session description: The Dean of Students Office (DSO) at Iowa State University uses an integrated approach to support student-centered learning, culminating in a transformative experience.

This panel discussion will begin with a brief introduction summarizing the best practices utilized by the Academic Success Center, Hixson Opportunity Awards, National Student Exchange, Student Disability Resources, and Writing and Media Center to achieve the following outcomes:

- Engage students in the learning process both inside and outside of the classroom

- Provide resources and support to empower students to achieve their academic and personal goals
- Collaborate with campus partners to encourage students in their persistence to graduation

Next, participants will engage in an extended Q&A panel discussion focusing on how to enhance student affairs and academic partnerships to expand the strategies that support student success, particularly for at risk or underrepresented populations. This engaging dialog will focus on how all areas can partner effectively with the programs and services offered by the DSO in support of student success and retention.

### **First-Year STEM Retention: Development of an Integrated Predictive-Analytic Method**

Presenters: Ann M Gansemer-Topf, Assistant Professor, School of Education; Patrick I Armstrong, Associate Professor, Psychology; Cinzia Cervato, Professor, Geological and Atmospheric Sciences; Clark R Coffman, Associate Professor, Genetics/ Development & Cell Biology- AGLS; Daniel S Nettleton, Professor, Statistics; Craig A Ogilvie, Professor, Physics & Astronomy

Session description: We are developing a predictive method that can reliably identify students at risk of dropping out or switching from STEM majors early in their college careers. This is a very difficult prediction problem because the available information is often indirect and the difference between the characteristics of those who switch and those who stay in STEM is slight. Our long-term goal is to provide faculty and academic advisors with a list of students who are at risk, who in turn can meet with students and recommend targeted interventions based upon their risk factors. This approach transforms an attrition problem into an opportunity for intervention and retention of STEM students.

During this session, we will provide preliminary data and present our ideas for what input data could potentially help identify students at risk of leaving STEM.

### **Beating the Projection: Understanding Attributes and Behaviors of Students who Outperformed the At Risk GPA Model**

Presenters: Raj Raman, Professor and Associate Chair for Teaching, Department of Agricultural and Biosystems Engineering; Amy Kaleita, Associate Professor, Department of Agricultural and Biosystems Engineering; Jonathan Compton, Senior Research Analyst, Office of the Registrar; Kate Ralston, Research Manager, Office of Admissions; Greg Forbes, Research Analyst, Office of Student Financial Aid; Darin Wohlgemuth, Interim Director of Admissions; Aurelia Kollasch, Senior Research Analyst, Department of Residence

Session description: The grade point average (GPA) a student achieves in her first term in college is a strong indicator of her likelihood to be retained and graduate. Students earning less than a 2.0 first term GPA are at high risk of not being academically successful at Iowa State University. To improve retention, the Enrollment Research Team developed a predictive model for the Division of Student Affairs to help identify “At Risk” students prior to the start of their first semester. Some students outperform the model’s prediction of their academic success, and the goal of this study is to identify attributes and behaviors associated with “beating the projection.”

Participants will learn about a collaborative project between the Enrollment Research Team and faculty from the Department of Agricultural and Biosystems Engineering. The project focuses on College of Engineering (COE) students predicted to achieve less than a 2.0 first term

GPA. A targeted At Risk model is developed for COE students, and factors influencing at risk status are identified and compared to those for the university-wide model. Using end-of-term GPA data, students on the At Risk list are sorted into two categories: those who “beat the projection” and obtained higher than a 2.0 in their first term, and those who did not. MAP-Works® Survey responses are analyzed for these two groups to determine if and where there are statistically significant differences. This will help elucidate factors that make some students more successful than others. Future work will include focus groups with students to uncover other common factors.

### **From Academic Promise to Academic Probation: What Went Wrong and What We Can Do About It**

Presenters: Jane R. Jacobson, Director, Student Enrollment, Advising, and Career Services, College of Liberal Arts & Sciences; Amy Slagell, Associate Dean, Academic Programs, College of Liberal Arts & Sciences

Session Description: Nearly 100 entering first-year students moved from academic promise to academic probation in 16 weeks. This session will draw upon the academic self-assessment forms completed by the 98 Fall 2013 admits who were placed on academic probation in the College of Liberal Arts and Sciences after their first semester. These assessments contain first-hand information from students about what played a part in their lack of academic success the previous fall.

During the session we will present our analysis of student comments on the self-assessment forms. Participants will engage in a conversation about how to use these student insights to better structure programs and outreach for future new students. With input from people who contribute to both the curricular and co-curricular parts of the student experience, we will move from the data to action steps that will support the development of individual, departmental and college/division action plans.

### **A Reason to AIM: Aerospace Imperative Mentoring**

Presenters: Katrina Harden Williams, Academic Adviser, Aerospace Engineering; Courtnee Jackson, student, Aerospace Engineering

Session description: Iowa State University’s Aerospace Engineering Academic Advising Center has revealed great concern for two distinct populations. The following two mentorship clusters serve as a model to meet distinct needs of our students who are female and/or students of color:

- Aerospace Imperative Mentoring: AIM to empower, educate, and provide a safe path for women in Aerospace Engineering as they matriculate through higher education courses and life challenges.
- BAM: Broadening Aerospace MENToring seeks to educate, empower and equip underrepresented male minorities to face both academic and personal challenges presented to them while on the Aerospace Engineering educational journey.

This presentation will reveal several reasons for AIM and rationale for the decision to provide a 30-week mentoring cluster for Women of Color (with or without financial support) during very trying times for one academic advisor, who had more than seven hundred students vying for her wisdom & guidance (and of course, her signature). Participants will learn from first-hand experience some strategies when struggling to serve a large number of students.